



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,060	06/15/2006	Josef Artelsmair	ARTELSMAIR-7 PCT	6099
25889	7590	10/26/2009		
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER DANG, KET D	
			ART UNIT 3742	PAPER NUMBER
			MAIL DATE 10/26/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,060	Applicant(s) ARTELSMAIR, JOSEF	
	Examiner KET D. DANG	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/15/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-17 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4, 7-17 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to the amendment filed on June 23, 2009. As directed by the amendment: claims 1-4, 7, 9-17, and 20-22 have been amended, claims 5-6 and 18-19 have been cancelled. Thus, claims 1-4, 7-17, and 20-22 are presently pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 7-14, 17, & 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditschun et al. (US 4,806,735) in view of Forrest et al. (Pub No. US 2002/0148113 A1) and further in view of Trube et al. (US 6,469,277 B1).

4. Regarding claims 1, 4, 7-14, 17, & 20-22, Ditschun et al. disclose a welding apparatus with a welding torch unit (See figure 1) connectable thereto via a hose pack; wherein at least one control device 52M (Fig. 6) and a welding current source 24 (Fig. 1) are arranged in the welding apparatus (Abstract); wherein the welding torch unit (See figure 1) is formed by at least first 10 (fig. 1) and second 12 (fig. 1) separate welding torches (Col. 6, lines 30-42); wherein the first welding torch 10 (Fig.1) has a first welding wire 16 (fig. 1) and is configured to carry out a first cold-metal transfer welding process and the second welding torch 12 (Fig. 1) has a second welding wire 18 (fig. 1) and is configured to carry out a second cold-metal transfer welding process; wherein a device

Art Unit: 3742

(Col. 6, lines 30-32) for synchronizing the first and second welding processes carried out by the first and second welding torches (Col. 3, lines 66 – Col. 4, lines 12) is provided; wherein the first welding torch 10 (Fig.1) precedes the second welding torch 12 (Fig. 1) in a welding direction (Col. 2, lines 6-12); wherein two separately controllable current sources 24/28 (Fig. 1) are arranged in the welding apparatus to supply the welding torch unit (See figure 1) with energy; wherein only one current source 24 (Fig. 1) is arranged in the welding apparatus to supply the welding torch unit (See figure 1) with energy, which current source is alternately connected with one of the first 10 (fig. 1) and second 12 (fig. 1) welding torches (Col. 2, lines 32-37); wherein the first 10 (fig. 1) and second 12 (fig. 1) welding torches of the welding torch unit (See figure 1) are laterally offset relative to one another in the welding direction (Col. 2 lines 6-10); wherein the first 16 (fig. 1) and second 18 (fig. 1) welding wires have different diameters (Col. 3, lines 3-7); a welding method comprising the steps of carrying out a first welding process 24 (fig. 1); a second welding process 28 (fig. 1); and synchronizing the first and second welding processes in time (Col. 3, lines 66 – Col. 4, lines 12); wherein a consumable welding wire 16 (Fig.1) is moved forward and backward, and wherein the cold-metal transfer welding process follows the second welding process in a welding direction (Col. 2, lines 6-25); wherein at least the first 24 (fig. 1) and second 28 (fig. 1) welding processes use consumable welding wires 16/18 (Fig. 1) and are temporally synchronized in a manner that the droplet detachments from the welding wires of the first 24 (fig. 1) and second 28 (fig. 1) welding processes take place simultaneously (Col. 3, lines 66 – Col. 4, lines 12); wherein first 24 (fig. 1) and second 28 (fig. 1) welding

Art Unit: 3742

processes use melting welding wires 16/18 (Fig. 1) and are temporally synchronized in a manner that the droplet detachment from the welding wire of one first 24 (fig. 1) and second 28 (fig. 1) welding processes takes place in a manner temporally offset relative to the droplet detachment of the other of the first 24 (fig. 1) and second 28 (fig. 1) welding processes (Col. 3, lines 66 – Col. 4, lines 12).

5. Ditschun et al. (US 4,806,735) fails to disclose a welding torch is configured to carry out a cold-metal transfer welding process with a forward-backward movement of a welding wire; wherein the welding wires comprises different materials; a laser unit; wherein the first welding torch comprises a plasma burner; wherein the first and second welding torches comprise a common gas nozzle; wherein the second welding process comprises a plasma welding process or a laser welding process.

6. However, Forrest et al. teach a cold-metal transfer welding process (Abstract) with a forward-backward movement of a welding wire (Page 2, paragraph 34, lines 1-6); wherein the welding wires comprises different materials (Page 2, paragraph 31, lines 1-6). Trube et al. teach a laser unit (Abstract and one drawing); wherein the first welding torch comprises a plasma burner (Col. 1, lines 48-53); wherein the first and second welding torches comprise a common gas nozzle (Col. 2, lines 55-58); wherein the second welding process comprises a plasma welding process (Col.1, lines 48-53) or a laser welding process (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Ditschun's reference, to include a cold-metal transfer welding process, welding wires of different materials, a laser unit and process, a plasma burner, and a common gas nozzle as

Art Unit: 3742

suggested and taught by Forrest and Trube, for the purpose of providing: (1) a cold-welding metal over the die to portion of a thin metal film over the substrate (Page 1, paragraph 12, lines 105) and (2) a cost-effective because the dies are reusable (Page 7, paragraph 95, lines 3-10).

7. Claims 2-3 & 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditschun et al. (US 4,806,735) in view of Forrest et al. (Pub No. US 2002/0148113 A1), Trube et al. (US 6,469,277 B1), and further in view of Brunner et al. (US 6,570,132 B1).

8. Regarding claims 2-3 & 15-16, Ditschun, Forrest, and Trube disclose the claimed invention as set forth above, except for wherein the first welding torch comprises a WIG/MAG welding torch; wherein the first welding torch comprises a WIG welding torch; wherein the second welding process comprises a MIG/MAG welding process; and wherein the second welding process comprises a WIG welding process. However, Brunner et al. wherein the first welding torch is comprises a MAG welding torch (Col. 3, lines 16-18); wherein the first welding torch comprises a WIG welding torch (Col. 3, lines 16-18); wherein the second welding process comprises a MIG/MAG welding process (Col. 3, lines 15-18); and wherein the second welding process comprises a WIG welding process (Col. 3, lines 16-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Ditschun & Forrest's references, to include a WIG/MAG welding torch, a MIG/MAG welding process, and WIG welding process (known as TIG), as suggested and taught by Brunner, for the

Art Unit: 3742

purpose of performing different varieties of welding torch and processes (Col. 3, lines 16-18).

Response to Arguments

9. Applicant's amendments have overcome 35 U.S.C. 101, 35 U.S.C. 112 2nd paragraph rejections, and objection from the first non-final Office Action.

Conclusion

10. Applicant's arguments with respect to claims 1 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET D. DANG whose telephone number is (571) 270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Tu can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KET D DANG/

Examiner, Art Unit 3742

/TU B HOANG/

Supervisory Patent Examiner, Art Unit 3742